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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,322	12/20/2001	Magnus Gunnarsson	4740-101	1611
24112	7590	02/23/2006	EXAMINER	
COATS & BENNETT, PLLC P O BOX 5 RALEIGH, NC 27602			ZEWDU, MELESS NMN	
			ART UNIT	PAPER NUMBER
			2683	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/027,322	<b>Applicant(s)</b> GUNNARSSON ET AL.	
	<b>Examiner</b> Meless N. Zewdu	<b>Art Unit</b> 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.  
     4a) Of the above claim(s) 11-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 24-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                        |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>          </u> | 6) <input type="checkbox"/> Other: ____.   |

### **DETAILED ACTION**

1. This action is the first on the merit of the instant application.
2. Claims 1-36 are pending in this action.
3. Claims 11-23 are withdrawn from further consideration as a result of Election/Restriction requirement (see attached Interview Summary).
4. Examiner couldn't find a reference listed in Form PTO-1449, dated/received on 2/4/04, in the file of the instant application..

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10 and 24-36, drawn to location based service, classified in class 455, subclass 456.3.
- II. Claims 11-23, drawn to power conservation, classified in class 455, subclass 574.

Inventions of group I and group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention of group I has separate utility such as providing service based on location of a mobile while the invention of group II has another utility such as conserving battery power of a mobile in any type of operation and/or service. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Edward H. Green, III (Reg. No. 42,604) on 12/21/05 a provisional election was made without traverse to prosecute the invention of group I, claims 1-10 and 24-36. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 6, 7, 10, 24 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Bahl et al. (Bahl) (US 6,885,860 B2).

**As per claim 1:** Bahl discloses a method of notifying a mobile terminal that a wireless local area network is present, said mobile terminal being connected to a wireless communication network (see abstract), comprising:

determining the location of said mobile terminal (see col. 2, lines 56-62);  
comparing said location with a known location of said wireless local area network (see fig. 4, step 408; col. 2, lines 56-62; col. 2, line 56-col. 3, line 16).

notifying said mobile terminal of said wireless local area network via said wireless communication network in response to said comparison (see fig. 4, step 410; col. 7, lines 45-58). The location data inherently includes notification; in other words, the user will know the availability of the fixed (WLAN/access point/s) network.

**As per claim 2:** Bahl discloses a method, wherein notifying said mobile terminal of said wireless local area network comprises transferring data regarding said wireless local area network from said wireless communication network to said mobile terminal (see fig. 4, step 410; col. 7, lines 45-58).

**As per claim 6:** Bahl discloses a method, wherein determining the location of said mobile terminal comprises processing signals received by said mobile terminal from two or more base stations to compute the location of said mobile terminal (see col. 2; lines 11-28).

**As per claim 7:** Bahl discloses a method, wherein determining the location of said mobile terminal comprises receiving location data from said mobile terminal (see col. 5, line 66-col. 6, line 5).

**As per claim 10:** Bahl discloses a method, wherein notifying said mobile terminal of said wireless local area network comprises notifying said mobile terminal in a manner specified by an entry in a subscriber database of said wireless communication network, said entry being associated with said mobile terminal (see col. 7, lines 38-58). A fixed resource includes a WLAN/access point/s (see col. 6, lines 26-40).

**As per claim 24:** the features of claim 24 are similar to the features of claim 1. Hence, claim 24 is rejected on the same ground as claim 1.

**As per claim 27:** a wireless communications network, comprising:

a plurality base stations operative to communicate wirelessly with at least one mobile terminal (see col. 2, lines 7-27, lines 56-62).

a database storing location information relating to at least one wireless local area network (see fig. 2; col. 2, line 63-col. 3, line 23; col. 6, lines 621).

a location estimator (a locator) operative to estimate (to locate) the location of said mobile terminal (see fig. 2, elements 208 and 209; col. 5, lines 63-65), and to notify said mobile terminal (see col. 7, lines 38-58) if said mobile terminal is within a predetermined range of said wireless local area network (see col. 2, lines 56-63).

"Closest", indicates a predetermined range; in other words, the fixed resource (WLAN) to be connected to the requesting mobile terminal is determined to be the closest one, and hence, provided if the closest.

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**As per claim 28:** Bahl discloses a network wherein said predetermined range includes a coverage area serviced by said wireless local area network (see col. 2, lines 56-63; col. 5, lines 1-17).

**As per claim 29:** Bahl discloses a network further comprising a data communications to said wireless local area network (see col. 5, lines 1-17).

Claims 3-5 rejected under 35 U.S.C. 103(a) as being unpatentable over Bahl as applied to claim 1 above, and further in view of Bhatia (US 5,930,699).

**As per claim 3:** but, Bahl does not explicitly teach about a method, wherein transferring data regarding said wireless local area network comprises sending said data as a SMS message, as claimed by applicant. However, in a related field of endeavor Bhatia teaches about address retrieval system that enables a user of a mobile station requests location information from a database and wherein the address/location data transmitted to the mobile station using SMS protocol (see fig. 1; col. 3, lines 26-41). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to send data to a mobile station using SMS protocol (message) for the advantage of providing a user with information that can be viewed (see col. 1, lines 42-52, particularly lines 50-52).

**As per claim 4:** Bhatia teaches a method, wherein As per claim 4: Bahl discloses a method, wherein determining the location of said mobile terminal comprises determining the cell of said wireless communication network in which said mobile terminal is located (see col. 2, lines 28-45).

**As per claim 5:** Bhatia teaches a method, wherein determining the location of said mobile terminal further comprises determining the sector of said cell in which said mobile terminal is located (see col. 3, lines 61-63).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bahl as applied to claim 1 above, and further in view of Eaton et al. (Eaton) (US 6,888,811 B2).

**As per claim 8:** but, Bahl does not explicitly teach about a method step wherein said location data is calculated from satellite navigation signals received at said terminal, as claimed by applicant. However, in a related field of endeavor, Eaton teaches about a communication system for location sensitive information wherein a portable device that includes a GPS receiver determines its current location (see col. 2, lines 30-46; col. 8, lines 39-54). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Bahl with that of Eaton for the advantage of enabling a portable device determine its current location, as taught by Eaton.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bahl in view of Shaheen et al. (Shaheen) (US 2004/0203792 A1).

**As per claim 9:** but, Bahl does not explicitly teach about broadcast notification of said wireless local area network over a broadcast or paging channel. However, in a related field of endeavor, Shaheen teaches that a user equipment (UE) listens to the broadcast control channel (BCCH) to receive list of available WLANs and acquires the location of a preferred WLAN (see paragraph 0020). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made modify the teaching of Bahl



with that of Shaheen for the advantage of performing handoff when the UE is within the range of the WLAN (see paragraphs 0021-0022)

Claims 30-36 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahl in view of Gurin (US 2002/0093956 A1). For examination purposes, claim 30 is considered first.

**As per claim 30:** Bahl discloses a wireless communication system (see col. 5, lines 1-17), comprising:

- a mobile terminal (see abstract);

- a plurality of base stations operative to communicate wirelessly with said mobile terminal (see col. 1, lines 44-53; col. 2, lines 7-27).

- a database storing location information relating to at least one wireless local area network (see col. 5, line 58-col. 6, line 5);

- a wireless mobile computing device including a wireless local area network (see col. 4, lines 54-67).. But, Bahl does not explicitly teach about an interface being maintained in an inactive state and placed in an active state in response to a notification received by said mobile terminal from said wireless communication network indicating the proximity of said mobile terminal to said wireless local area network, as claimed by applicant. However, in a related field of endeavor, Gurin teaches about a dynamic communication and method of use, wherein a short range communication transceiver can be enabled/disable or established/cancelled based on location (see paragraphs 0009, 0045 and 0103). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of

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Bahl with that of Gurin for the advantage of conserving battery power and communications bandwidth (see paragraph 0103).

**As per claim 31:** Bahl teaches a system wherein said wireless mobile computing device additionally includes a data communication interface to said mobile terminal (see col. 4, lines 44-67).

**As per claim 32:** Gurin teaches a system wherein said data communication interface comprises a wire or optical cable (see paragraphs 0017 and 0044).

**As per claim 33:** Gurin teaches a system wherein said data communication interface comprises a wireless interface (see paragraphs 0017 and 0044).

**As per claim 34:** Gurin teaches a system wherein said wireless communication interface is an optical interface (see paragraphs 0017 and 0044).

**As per claim 35:** Gurin teaches a system wherein said wireless interface is a radio interface (see (see paragraphs 0017 and 0044).

**As per claim 36:** Gurin teaches a system wherein said radio frequency interface is a BLUETOOTH interface (see paragraph 0044).

**As per claim 25:** Gurin teaches a method further comprising activating a wireless local area network interface in said mobile computing device in response to receiving said data (see paragraphs 0033 and 0103).

**As per claim 26:** Gurin teaches a method wherein said data is transferred to receiving from said mobile computing device over a wireless data interface (see col. 4, lines 44-67).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (671) 272-2600.

Meless zewdu  
Examiner

06 February 2006

STEVE M. D'AGOSTA  
PRIMARY EXAMINER

*[Handwritten signature]*  
2-13-06